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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,363	03/27/2007	Hitoshi Tamai	20162.0016USWO	9226
52835 7590 02/01/2010 HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902 MINNEAPOLIS, MN 55402-0902				
EXAMINER				
PENG, KUO LIANG				
ART UNIT		PAPER NUMBER		
1796				
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02/01/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/588,363

Applicant(s)

TAMAI ET AL.

Examiner

Kuo-Liang Peng

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/5/09 Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The Applicants' amendment filed November 5, 2009 is acknowledged. Claims 24-26 are deleted. Claims 1-23 are amended. Now, Claims 1-23 are pending.
2. Claim objection(s) in the previous Office Action (Paper No. 20090720) is/are removed.
3. Claim rejection(s) under 35 USC 112 in the previous Office Action (Paper No. 20090720) is/are removed.
4. Claim rejection(s) under 35 USC 102 in the previous Office Action (Paper No. 20090720) is/are removed.
5. The text of those sections of Title 35, U.S. code not included in this action can be found in prior Office Action(s).

Specification

6. The disclosure is objected to because of the following informalities:

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a ***single paragraph*** on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. Claims 1-14, 19 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanamori (WO 02 085985)

The following column and line numbers are based on Kanamori's U.S. equivalent, US 7 297 743.

Kanamori discloses a structure comprising a ***transparent material*** such as glass, etc. and a cured product formed thereon. The cured product is derived from a composition comprising a ***vinyl polymer*** having reactive silicon containing group (a), a ***polyoxyalkylene polymer*** having a reactive silicon containing group, and a ***plasticizer*** having an acrylic component (c) (col. 3, lines 55-63 and col. 23, lines 6-16). The ***reactive silicon*** containing group is represented by the formula (1) of Kanamori where X represents a hydroxyl or hydrolysable group and R² is a substitute or unsubstituted univalent organic group containing 1-20 carbons, which reads on the vinyl polymer which contains at least one crosslinkable silyl group. The vinyl polymer has a main chain that is obtained from the ***living radical polymerization*** technique, which has a ***molecular weight distribution*** of less than 1.8. (col. 4, line 50 to col. 5, line 10, col. 5, line 65 to col. 6, line 11 and col. 12, lines 5-8). The vinyl polymer is preferable

derived from **acrylate** and/or **methacrylate** monomers. (col. 4 lines 25-30). Regarding the antioxidant, examples 1, 4, and 10, the composition further comprises the UV absorber Tinuvin 327, a **hindered phenol compound**, which reads on the composition as claimed (col. 25, line 50 to col. 26, line 21). The foregoing curable composition has applications in the field of **buildings** and adheres to **glass**, ceramics, wood, metals, and shaped resin articles (col. 23, lines 6-16). Kanamori further teaches a number of additives to the curable composition, which includes photocurable resins such as polyfunctional acrylic resins. These resins are known for their **self-cleaning** properties (col. 22, lines 15-29). Example 4 has titanium dioxide, which is photocatalytic (see col. 6, line 45 – col. 7 line 4). The composition further comprises calcium carbonate (**hydrophilic material**). The curable composition can include a plasticizer component which includes **phthalic esters** and esters of polyalkylene glycols (**polyoxyalkylene polymer**)(col. 19, lines 32-40 and 62-65). Kanamori further describes in Example of Synthesis-2, the making of an silyl-terminated poly(propylene oxide) polymer, which is subsequently blended with vinyl polymer with hydrolysable silyl groups prepared from synthesis example 1 in a 70/30 weight ratio (~233%). This reads on the claimed range of 0.1 to 1,000

parts by weight per 100 parts by weight of the vinyl polymer (0.1 – 1000%). Example 1 further illustrates a curable composition comprising 3 weight parts of stannous octanoate (***tin curing catalyst***) and 100 weight parts of the polymer (A) (vinyl polymer).

8. Claims 15-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanamori as evidenced by JP456 (JP 2000-178456).

The following column and line numbers are based on Kanamori's U.S. equivalent, US 7 297 743 or JP456's U.S. equivalent, US 7 081 494.

Kanamori discloses a structure comprising a transparent material and a cured product formed thereon, *supra*, which is incorporated herein by reference. Kanamori further teaches that the vinyl polymer can be prepared by living radical polymerization according to JP456's disclosure. (col. 5, line 65 to col. 6, line 11) Thus, JP456 teaches a living radical polymerization technique such as ***atom transfer radical polymerization*** for preparing vinyl polymer employing transitional metal complexes such as ***copper complex*** in combination with an organohalogen compound. (col. 9, lines 27-37, col. 13, line 43 to col. 14, line 67 and col. 15, lines 4-28) The vinyl

polymer can have at least one **terminal reactive silyl group**. (col. 16, lines 32-58)

Responsive to arguments regarding 35 USC § 102 rejection

9. Applicant's arguments filed November 5, 2009 have been fully considered to the extent the claims as currently amended, but they are not persuasive for at least the following reasons:

For Applicants' argument (Remarks, page 8, last paragraph bridging to page 9, 1st paragraph): First, Kanamori does teach a structure including a **transparent material** with a **cured product** thereon, *supra*. Second, with respect to the alleged **superior properties** associated with the presently claimed structure, Examiner notices that evidence of secondary considerations, such as unexpected results or commercial success, is **irrelevant** to 35 USC 102 rejections and thus cannot overcome a rejection so based. *In re Wiggins*, 488 F.2d 538, 543, 179 USPQ 421, 425 (CCPA 1973).

For Applicants' argument (Remarks, page 9, 2nd paragraph), Examiner's position, *supra*, is applicable here.

For Applicants' argument (Remarks, page 9, last paragraph), the assertion that JP456 does not cure the deficiencies of Kanamori is immaterial, since the disclosure of JP456 is used merely for showing the polymerization technique that is indirectly taught in Kanamori.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck, can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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klp

January 29, 2010

/Kuo-Liang Peng/

Primary Examiner, Art Unit 1796